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FOREIGN NEWS ON APPLES

NOTES ON THE APPLE INDUSTRY OF CZECHOSLOVAKIA

The Republic of Czechoslovakia is one of the principal sources of cheap fruit offered in the markets of northern Europe. Its apples are to be seen in bulk in the bins of 100-ton barges on the River Spree in Berlin, or on the Elbe in Hamburg, all during the autumn months and, to a lesser degree, all during the winter. Great volumes of Czechoslovakian plums and pears in baskets are also to be seen in the cities of Germany, England, Denmark, Norway and Sweden.

From the standpoint of appearance and freedom from waste the apples from this country do not compare with the splendid merchandizing qualities of the fruit from North America, or from the Italian Tyrol. The owners have brought them from the nearby orchards in railway cars or barges at a minimum of cost, and here weigh them out into the baskets, bags or crates of the wholesale, retail, and consuming trade alike. Until they are off the market the demand for American apples is likely to be limited.

The Fruit Districts of Czechoslovakia.

For the most part fruit growing is well scattered all over the Republic, an old law requiring farmers to plant fruit trees along all roadsides. It is stated that the law is not strictly enforced, but there is no question but that the prevalence of roadside fruit trees in all parts of Czechoslovakia has resulted from this old legislative action. Home fruit gardens are to be seen in many parts.

Commercial production is also well scattered. For apples, pears and plums, the northern and western part of the country predominates, production centering in Königgrätz, Leitmeritz, Bodenbach, and Tetschen. Some of the best and heaviest plantings are in the neighborhood of Leitmeritz. Another district for apples lies in Russo-Carpathia, centering at Uzhorod. Grapes and apricots are produced in the southern parts of Moravia and Slovakia, the grapes being used mostly for wine-making.

The apples that are produced in the extreme southern part of the republic, or Russo-Carpathia, are reputed to be of the very best as to color, size and quality, but methods in vogue are extremely crude, so that their market appearance and value are not what they might be. The two varieties said to grow to excellence are Jonathan and Fowary. In a year of a good crop about 1,000 cars, (10,000 metric tons) are shipped. The principal points of production are Uzhorod, Munkacs, Tiacevo, and Teresva.

The inspectors in Czechoslovakia periodically revise their estimates of the number of fruit trees and their production, therefore the statistics given below, which were furnished by the Czechoslovakian Ministry of Agriculture, should be regarded as estimates rather than census returns.

FRUIT TREES: Number in Czechoslovakia.

	<u>1920, 1921, and 1922</u>	<u>1923</u>
Apples	6,430,059	6,429,959
Pears	3,352,003	3,351,963
Plums, Ordinary...	10,241,134	10,240,434
Other	1,268,393	1,268,393

FRUIT: Production in Czechoslovakia.

	<u>1920</u> <u>Short tons</u>	<u>1921</u> <u>Short tons</u>	<u>1922</u> <u>Short tons</u>	<u>1923</u> <u>Short tons</u>	<u>1924</u> <u>Short tons</u>
Apples	390,144	183,903	354,959	204,403	263,044
Pears	156,404	161,825	176,351	115,893	167,350
Plums, Ordinary	391,998	328,077	508,287	337,430	235,777
Other...	46,972	32,572	53,749	32,772	24,941

Yield of Apple, Pear and Plum trees by districts in the territory of the Czechoslovakian Republic (1) in 1924

<u>District</u>	<u>Apples</u>	<u>Pears</u>	<u>Ordinary Plums</u>	<u>Other Plums</u>
	<u>Short tons</u>	<u>Short tons</u>	<u>Short tons</u>	<u>Short tons</u>
Bohemia	159,786	116,770	127,136	9,334
Moravia	44,098	22,949	51,563	8,724
Silesia	3,231	2,661	1,135	1,972
Slovakia	39,487	21,139	46,229	3,755
Russo-Carpathia	16,443	3,831	9,714	1,157

Fruit Production in Bohemia.

Bohemia is by far the most important part of Czechoslovakia for fruit production. The fruit district starts in the valley of the River Elbe, across the German frontier, where the steep banks recede to gentler slopes and allow the planting of trees and the growing of crops. The industry follows the River Elbe back to a point near Leitmeritz, and then spread out in both directions, the commercial plantings being mostly on the slopes. The most regular crops are secured on the hillsides where air-drainage minimizes the damaging effect of spring frosts.

1/ Czechoslovakia Ministry of Agriculture's estimate.

The number of fruit trees in Bohemia as compared with all of Czechoslovakia is as follows:

	<u>Number of Trees in Bohemia (2)</u>	<u>Number of Trees In Czechoslovakia (3)</u>
Plums	5,240,860	10,241,130
Apples	3,789,900	6,651,250
Pears	1,960,670	3,352,000
Cherries	1,342,580	2,541,210

The apple orchards to be seen in Bohemia are quite different from those one is familiar with in the United States. Fruit is never looked to as the sole source of revenue and only infrequently is it important enough to occupy first place among the activities of the farmer. For this reason the trees are frequently planted at random over the farm land, which, practically without exception, is cropped for hay, grain, garden truck, or sugar beets. In the better sections the trees are planted in regular rows and are pruned and given a fair amount of care, but the importance attached to the cropping of the land has developed a culture calling for very wide spacing of trees and training to very high heads. The soil ranges from a silt-loam along the river to quite a heavy clay loam higher up and farther back. For the most part it is very productive and the bottom lands are frequently used for hop-growing.

Since all of the orchard land is used for crop production there is very little distinction made between the price with trees or without. Land with good producing trees is, of course, much more expensive than that with trees in poor condition. Land values in Bohemia vary from 8,000 to 30,000 Kr. per hectare, whereas some of the very best orchard and hop land sells for as high as 60,000 Kr. per hectare. (equivalent to approximately \$95, \$365 and \$730 per acre). The farms range in size from 10 to 300 acres. In many parts there is much "strip farming".

Many varieties of apples are grown in Bohemia. The principal ones shipped are as follows: Gravensteiner, Ananas, Renette, Kanada Renette, Kaiser Alexander, Prinzenapfel, Goldparmainen, Baumanns Renette and Roter Stettiner.

The principal varieties of pears are: Solaner, Williams, Claps, Kongress, Madambirne, Holzfarbige, Gute Lüise von Avranches, Kaiserkrone, Kostluch (Flaschenbirne) Weisse Herbstbutterbirne, Leigals Winterbutterbirne (Amorette), Alexander Lukas Butterbirne.

Owing to the lack of attention to cultivation and to the ravages of insect and plant disease on the foliage, apple crops in alternate years are the rule. Apple trees seem to be subject to most of the pests that are prevalent in American orchards with the exception of San Jose Scale. Where spraying is done, hand sprayers are used. No power sprayers were observed, even in the best fruit districts.

(2) Statistics for Bohemia furnished by Mr. Turetschek, Fruit Inspector, at Usti.

(3) Year not stated; note figures page 2.

Harvesting and Marketing Methods.

For export purposes, plums and pears occupy an even more prominent position in Czechoslovakia than apples. For plums and pears 10 kilo (22 lbs) baskets, costing 3 Kr, (about 9¢) each are used. They are loaded into ordinary railway cars, carrying about 22,000 pounds, and are shipped to all of the northern markets, including those of England, Denmark Norway and Sweden.

Apples are picked by the growers and placed in piles near the trees. Exporters have local buyers in the various districts who come in contact with the farmers and buy the fruit on a weight basis. The farmer then sorts the fruit into three grades, the best for export, the second grade for the home use and canning, and the third for cider or jam.

After being sorted into bags or baskets, the apples are hauled in springless wagons to the railway station or to docks along the river, where they are dumped into railway cars or river barges and shipped in bulk. Most of the apples grown along the River Elbe are shipped in barges. The holds of these craft are separated into compartments on either side of the keel which are again divided into a series of bins. One variety is placed in a bin.

Fruit going to England is shipped in baskets of a type used by English growers and shippers. These baskets, made in Czechoslovakia, are sold in England and thus constitute an article of export along with the fruit they contain. For the most part they are used for plums and pears and hold about 10 kilos (22 lbs). Their cost is 5 Kronen (about 15¢).

The exporter in Czechoslovakia has to invest his money in the fruit and transportation and in this respect is a speculator. His marketing methods are practically identical with those for American apples. In Norway and Sweden fruit is bought on order. In England it is necessary to consign to auction brokers or commission merchants. In Germany some exporters are establishing their own agents and selling direct to the wholesale trade instead of using auctions.

In some instances German commission merchants establish connections in Czechoslovakia and secure their supplies either on the basis of purchases or as consigned shipments from the growers or shippers. Co-operative associations are rarely found. The peasants at Usti (Aussig) have such an association but it is without property and occupies only a very minor position in the fruit industry.

No cold storages or other forms of fruit warehouses are to be found. The nearest semblance to a fruit packing plant was the "magazine" of a large exporter at Usti. This was an old railroad engine house into which cars of pears and plums were rolled there loads there being placed in baskets and loaded into other railway cars standing on adjacent tracks.

The fruit is all harvested and most of it shipped before cold weather comes in December. By the end of the year marketing operations are largely cleaned up. However, in years of heavy crops quite large volumes are stored in bulk in the barges, which are held at point of destination until the late winter months. By the end of January this fruit shows the effect of its rough handling and for the balance of the marketing season it constitutes an exceedingly inferior class of fruit, not competing seriously with sound apples.

Cost of Production and Marketing.

The nature of the fruit industry in Czechoslovakia should make it clear that no figures can be hazarded on apple production costs. The outlay made by the farmers is practically nothing. There is no special cultivation, very little spraying, a minimum of pruning and no package expense. The farmers do their own picking. There is very little sorting and no packing. Where labor is required, women are hired at 15 Kronen (45¢) per ten hour day.

The cost of transportation from Usti to Hamburg by railway is 5000 Kr. \$150 per wagon of 22,000 pounds as compared to 600 Kr. \$18 for the same weight by barge. As a consequence most of the apples are shipped by water at a cost that is almost negligible. Three men handle a hundred ton barge and the trip is made down the River Elbe with the current, no power other than that of the men being required.

The Outlook for the Apple Industry.

It is stated that during the war the farmers made money so readily from their fruit trees that they gave them little attention and that they are now showing the effect of lack of care. Since the war political and economic conditions have not resulted in good markets for these farmers.

It is to be noticed that the young plantings in Bohemia were mostly made during the period of the war. While there are many young plantings to be seen, they were not made recently. It requires from 9 to 12 years for an apple tree to come into bearing in Bohemia, thus there are many trees yet to come into bearing. There are also many trees that are passing their age of productivity. There are many plantings from 45 to 50 years of age and poor attention has caused most of these trees to become commercially unimportant. On the whole one would not be far wrong in saying that plantings within the past fifteen years have been great enough to meet replacement, but not great enough to cause a marked change in production. Since plum and pear trees have shown greater returns than apple trees there seems to have been much more attention given to keeping up these fruits than has been the case with apples.

With so much being heard about the rejuvenation of this country, one is led to expect great changes in Czechoslovakia's horticultural industry. However, after making a survey of farming conditions, the writer's conclusion is that this change will not be great enough during

the next twenty years to curtail seriously the European outlet for American apples, although the fundamental requirements for a great commercial production of quality apples are unmistakably present in this republic. A grower from New York or Virginia would look upon these possibilities with great enthusiasm, and were he to undertake fruit growing in Bohemia he would undoubtedly exploit the possibilities successfully within a very few years.

Here, however, we have a people who look upon fruit growing through different eyes. Their trees are not planted so that they can depend solely upon fruit for their livelihood. For generations the scheme of their farming has been to sow in the spring and to reap in the autumn. The making of a financial investment in a commercial orchard to be realized upon ten or fifteen years hence, would be an adventure on seas that they would fear to sail. The scattered nature of the plantings, the numerous varieties, the cropping of the land, the alternating crop years, the difficulty in financing proper spraying machinery, and the indifference toward organizing for assortment of varieties and for proper commercial packing are also important factors holding back the development of the industry.

The Czech people have the steady, plodding instincts of their forefathers, which tend to make them keep to a beaten track, generation after generation. Here we still see more ox teams than horses, more scythes than mowing machines, while automobiles and tractors among the farming people are beyond comprehension. With a soil as rich and a climate as favorable as in Frederick County, Virginia, Monroe County, New York, or Allegan County, Michigan, and the ox team stage of farming still the regular order of the day, it is not probable that the power sprayer, the sizing machine or the cold storage plant will be swept into regular use over night, nor is it even likely that another generation will be in a position to put New World methods into Old World practice.

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